APRIL/MAY 2024

GAM41/DAM41 — RECOMBINANT DNA TECHNOLOGY

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Who coined the term biotechnology?
2. Who discovered the restriction enzymes?
3. Define palindrome.
4. What is Ligation?
5. What is probe?
6. Define cloning.
7. Name the source of polymerase used for PCR.
8. Which buffer is used in PCR?
9. Define pituitary dwarfism.
10. What are the two types of hygiene?

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Give a brief note on M13 phage.

Or

(b) Explain the general properties of plasmids.

12. (a) Describe in brief about the nomenclature of restriction enzymes.

Or

(b) Comment on DNA ligase enzyme.

13. (a) Write in brief about nucleic acid hybridization.

Or

(b) Give an account on the construction of genomic library.

14. (a) What is RAPD? Describe briefly its procedure.

Or

(b) Write about gradient PCR.

15. (a) Give an account of principles of GLP.

Or

(b) Briefly describe the various approaches for the production of virus resistant transgenic plants.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Define Cosmids. Discuss in detail about its construction.

17. Write elaborately the function of different types of DNA polymerases.

18. Explain in detail the western blotting technique.

19. Discuss about polymerase chain reaction.

20. Write an essay on recombinant vaccines.

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